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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/830,149

04/23/2004

Yasurou Matsuzaki

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7590

11/04/2005

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EXAMINER

NGUYEN, VAN THU T

ART UNIT

PAPER NUMBER

2824

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EV

<b>Office Action Summary</b>	<b>Application No.</b> 10/830,149	<b>Applicant(s)</b> MATSUZAKI, YASUROU	
	<b>Examiner</b> VanThu Nguyen	<b>Art Unit</b> 2824	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) ~~filed on~~ with Charles Marmelstein on 11/2/05.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-45 is/are pending in the application.
- 4a) Of the above claim(s) 19, 20 and 30-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/841,611.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>04/23/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 19-45 are pending.
2. Claims 21-29 are present for examination.
3. During a conversation with Applicant's representative Charles Marmelstein, on

November 2, 2005, the following issues have been discussed:

- (a) Applicant agrees to cancel claims 19-20 and 30-45.

However, an Examiner's Amendment is not made as agreement has not reached, claims 19-20 and 30-45 can only be withdrawn from consideration for now. A formal request for cancellation of claims 19-20 and 30-45 is required in the next response.

- (b) Applicant does not agree to correct the 112 problems in claim 21 without Examiner's statement that they are only for clarification, and not changing the scope of the invention.

Therefore, the Office Action is as follows:

### ***Specification***

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Abstract should avoid using phrase such as "According to the present invention" on lines 1 and 13-14.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 21-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 21 line 4, limitation “for M external operation cycles ( $M \geq 2$ )” is not clear.

Suggested change is --for M external operation cycles, where M is greater than or equal to 2--.

In claim 21 line 5, it is not clear what apparently means in “where N is greater than ( $M < N < 2M$ )” because the Office gives no patentable weight for limitations in parenthesis of a claim. Suggested change is --where M is greater than M and less than 2M--.

***Allowable Subject Matter***

7. Claims 21-29 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

The prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Christenson (Patent No. 6,587,918) and Miyata et al. (Patent No. 5,323,352), taken individually or in combination, do not teach the claimed invention having a memory control circuit for M external operation cycles, where M is greater or equal to 2, has N internal operation cycles, where N is greater than M and less than 2M, in combination with the remaining claimed limitations.

Christenson discloses, in FIG. 4-6, a memory circuit having inherent DRAM memory, a refresh command generation circuit 52 for generating refresh request, a memory control circuit

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54 which carry out two read and one refresh operations for memory banks from external commands. Christenson does not disclose said memory control circuit 54 having for M external operation cycles, where M is greater or equal to 2, has N internal operation cycles, where N is greater than M and less than 2M.

Miyata et al. disclose, in FIGS. 1-2, a memory circuit having memory core 105; a refresh command generation circuit 101 which generates refresh commands CR; a memory control circuit 104 having a total of six (N) internal operation cycles (refresh-access-refresh-access-refresh-access) in response to all six (M) external operation cycles issued by CI and CR commands. Therefore, Miyata et al do not teach a memory control circuit for M external operation cycles, where M is greater or equal to 2, has N internal operation cycles, where N is greater than M and less than 2M.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VanThu Nguyen whose telephone number is (571) 272-1881. The examiner can normally be reached on Monday-Friday, 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 2, 2005



VanThu Nguyen  
Primary Examiner  
Art Unit 2824